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## ENERGY AND THE ENVIRONMENT

Energy and the environment are closely linked.

We hear so much these days about acid rain, smog, global warming, and the greenhouse effect that it can be overwhelming. But the fact is there are many things we can do as individuals which will make a significant difference. And remember, there are 9 million of us in Ontario who can make that difference.

You don't have to drive a car or own a home or be the president of a big company to help out: young children can have an influence by learning to turn out the lights when they leave a room.

Using energy wisely is the key. It reduces the impact on our environment, extends the life of our diminishing resources and saves everybody money. It definitely pays to be energy-efficient.

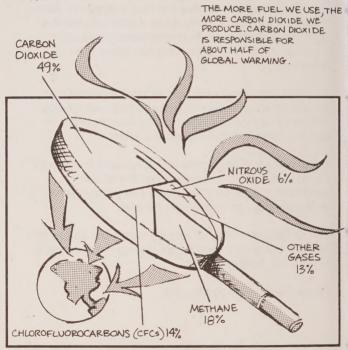
The Ontario Ministry of Energy hopes the tips in this booklet will inspire you to use energy more carefully in your day-to-day life.

Remember... Energy Matters.

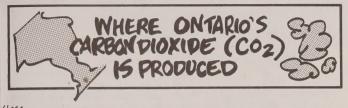


## CARBON DIOXIDE AS NORMAL HING AS BREATHING

OUR ATMOSPHERE TRAPS HEAT; SOME OF THE GASES IN OUR AIR PREVENT THE HEAT THAT ARRIVES FROM THE SUN FROM RETURNING TO SPACE. BUT EXCESS AMOUNTS OF THESE HEAT-TRAPPING GASES COULD AFFECT OUR CLIMATE BY GLOBAL WARMING. WE ADD TO GREENHOUSE GASES, ESPECIALLY CARBON DIOXIDE, IN OUR NORMAL, EVERYDAY LIFE BY BURNING FOSSIL FUELS-GASOLINE, FUEL OIL, NATURAL GAS, COAL AND PROPANE.



GREENHOUSE GASES DEFINED FROM HUMAN ACTIVITY. WE ALL CAN DO A GREAT DEAL TO HELP REDUCE THE CARBON DIOXIDE EMISSION: THAT WE CAUSE.



40% INDUSTRIAL 30% 30% TRANSPORTATION 26% ELECTRICITY GENERATION 20% 20% RESIDENTIAL ENERGY 11% INDUSTRY COMMERCIAL 6% 10%

WE CAN REDUCE EMISSIONS BY CONSERVING ENERGY OR USING ENERGY MORE EFFICIENTLY IN ALLOFTHESE AREAS. WE CAN DRIVE DUR CARS LESS, USE LESS ENERGY TO HEAT AND COOL OUR HOMES, SHIFT OUR ELECTRICITY USE TO OFF-PEAK HOURS, OR ACT ON THE ADVICE ENERGY AUDITS CAN PROVIDE ABOUT OUR BUSINESSES.

COMMON SOURCES OF OTHER GREENHOUSE GASES

	NITROUS OXIDE	-CAR EXHAUST-FERTILIZERS -BURNING FOSSIL FUELS
	CFCs	REFRIGERANTS IN AIR CONDITIONERS, REFRIGERATORS, FREEZERS-PLASTIC FOAMS
	METHANE	- GARBAGE - LEAKING GAS PIPES -TERMITES - AGRICULTURE.



BRANCH OUT!

EVERY TREE ABSORBS AN AVERAGE OF 4 KILOGRAMS OF CARBON DIOXIDE FROM THE AIR EVERY YEAR.

#### FOSSIL FUELS

COAL, PETROLEUM AND NATURAL GAS ARE CALLED FOSSIL FUELS. THESE FUELS COME FROM PLANTS AND ANIMALS THAT DIED MILLIONS OF YEARS AGO.

IN THE GROUND, THE CARBON IN THESE DECAYED PLANTS AND ANIMALS REMAINS INERT. HOWEVER, WHEN WE BURN FOSSIL FUELS TO PRODUCE USEFUL HEAT, WE PRODUCE CARBON DIOXIDE AND THUS INCREASE ITS PRESENCE IN TODAY'S ATMOSPHERE.

#### NUCLEAR ENERGY

NUCLEAR ENERGY DOES NOT DEPEND ON FOSSIL FUELS. URANIUM, THE FUEL USED IN THE CANADIAN CANDU NUCLEAR REACTOR, IS A METAL. ATOMS OF URANIUM ARE SPLIT, PRODUCING HEAT THAT IS USED TO MAKE ELECTRICITY. URANIUM IS NON-RENEWABLE, BUT CONTAINS NO CARBON AND GIVES OFF NO CARBON DIOXIDE.

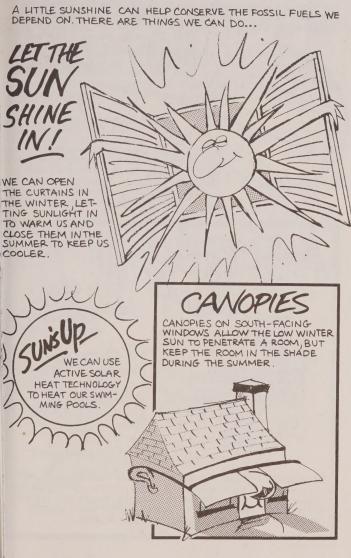


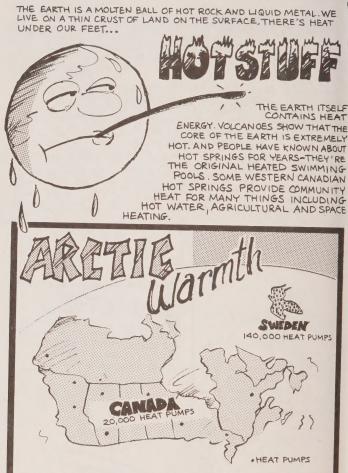
## PENERG SOURCE OF ENERG

FOSSIL FUELS ARE NON-RENEWABLE: USE THEM ONCE
AND THEY ARE GONE FOREVER. THERE ARE ALTERNATIVE.
SOURCES OF ENERGY THAT ARE RENEWABLE. WITH THE
EXCEPTION OF BIOMASS, THESE ALTERNATIVE. SOURCES
OF ENERGY ARE NOT MAJOR PRODUCES
OF CARBON DIOXIDE:



TO DATE, HYDRO-AS HYDROELECTRICITY—IS THE ONLY FORM OF RENEWABLE ENERGY THAT WE HAVE BEEN ABLE TO TAP EFFECTIVELY ON A MAJOR SCALE.

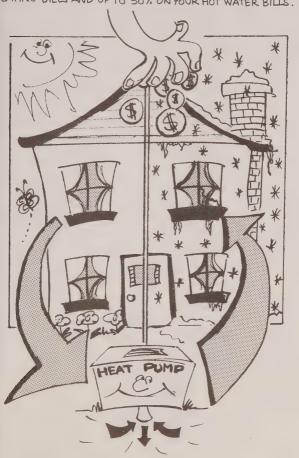




IN SWEDEN, A COUNTRY WITH A CANADIAN-TYPE CLIMATE, HEAT IS PUMPED OUT OF THE GROUND EVEN NORTH OF THE ARCTIC CIRCLE. SWEDES SAVE A GREAT DEAL OF MONEY AND ENERGY WITH THEIR 140,000 HEAT PUMPS. MORE THAN 20,000 CANADIAN BUILDINGS DEPEND ON HEAT PUMPS.

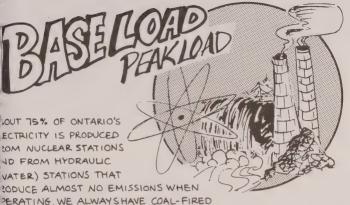
## HEAT PUMPS SAVE \$ \$

GROUND-SOURCE AND AIR-SOURCE HEAT PUMPS EXTRACT HEAT FROM ONE AREA AND TRANSFER IT TO ANOTHER. THEY CAN REPLACE OR ASSIST YOUR FURNACE, HOT WATER HEATER AND AIR CONDITIONER. HEAT PUMPS CAN SAVE 30% - 65% ON YOUR HEATING BILLS AND UP TO 50% ON YOUR HOT WATER BILLS.

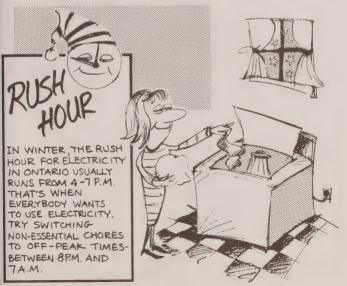


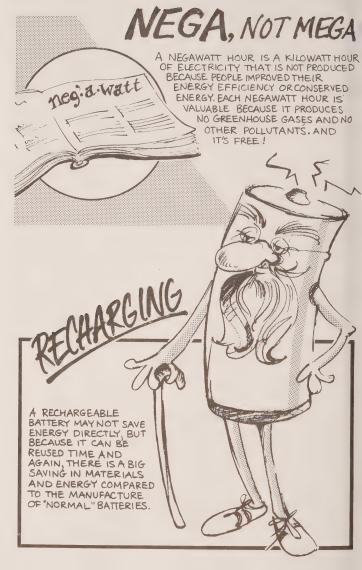
WASTE IS USUALLY SEEN AS AN ENVIRONMENTAL PROBLEM OR AN UGLY MESS. BUT SOMETIMES, IT'S AN ENERGY PLUS ... IT'S A GUSHEK THE KIDS CALL A KITCHENER LANDFILL DUMP "MOUNT GUSHMORE". YET IT GENERATES ENOUGH METHANE GAS TO CUT BY HALF ENERGY BILLS FOR A LOCAL MANUFACTURER HERE ARE TWO GOOD REASONS TO RECYCLE YOUR CANS. 1. EVERY TONNE OF STEEL RECYCLED SAVES MORE THAN A TONNE AND A HALF OF IRON ORE. 2. IT TAKES 70% LESS ENERGY TO PRODUCE ALUMINUM FROM RECYCLED PRODUCTS THAN FROM RAW MATERIALS. POWERFUL GARBAGE METHANE A GREENHOUSE GAS, IS GIVEN OFF BY ROTTING. GARBAGE, BY RECOVERING 2 AND BURNING THE METHANE

PRODUCED BY A MEDIUM-SIZED LANDFILL SITE, WE CAN PRODUCE ENOUGH ELECTRICITY POWER 3,000 HOMES.



ENERATING STATIONS IN OPERATION, BUT AT TIMES OF PEAK DEMAND, E RELY EVEN MORE HEAVILY ON FOSSIL FUEL-POWERED STATIONS TO AKE THE EXTRA ELECTRICITY WE NEED. THAT'S WHEN ELECTRICITY CODUCTION LEADS TO HIGH LEVELS OF CARBON DIOXIDE EMISSIONS.





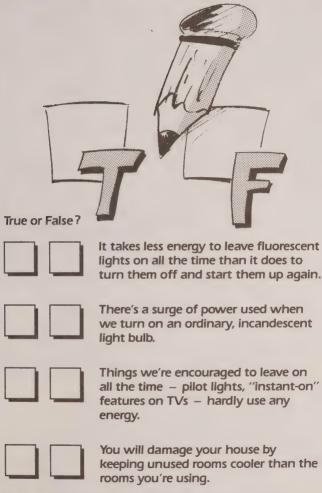




THERE'S A SOLAR FLASHLIGHT AVAILABLE THAT CAN
BE CHARGED UP IN THE SUNLIGHT TO PROVIDE FIVE HOURS
OF LIGHT FROM A SIX-WATT FLUORESCENT BULB. YOU CAN
KEEP RECHARGING THE FLASHLIGHTS SOLAR BATTERIES
FOR UP TO SIX YEARS AND IT IS MUCH LESS EXPENSIVE TO
OPERATE THAN ONE THAT USES REGULAR BATTERIES.

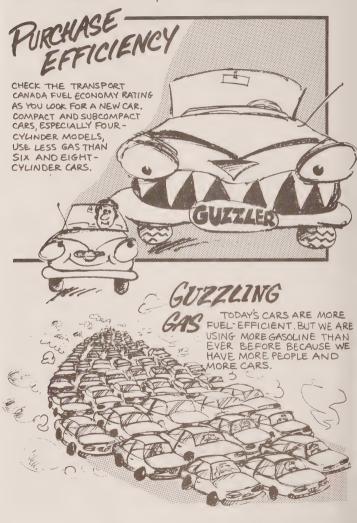


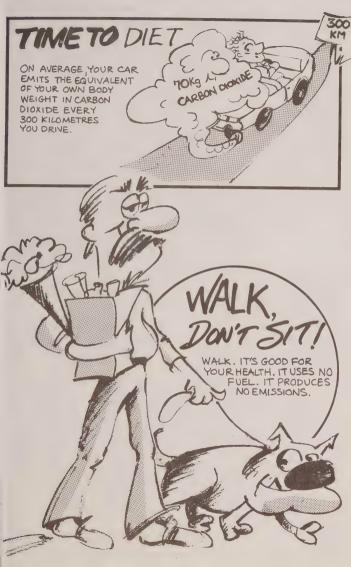
If you go away...on a summer day...on a winter day

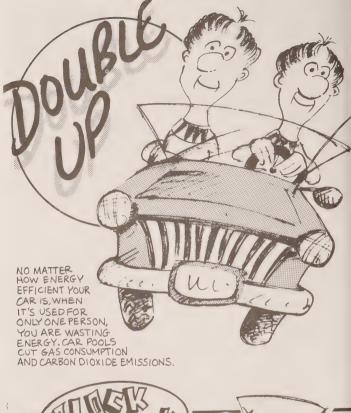


If you answered FALSE to all of the above, you're on your way to using energy wisely.

TRANSPORTATION IS A BIG ENERGY USER BEFORE HOPPING INTO THE CAR, CONSIDER WALKING OR CYCLING. INSTEAD OF TAKING A PLANE BETWEEN CITIES, RIDE THE RAILS OR TAKE A BUS.



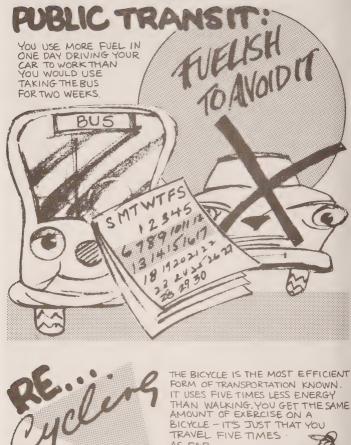


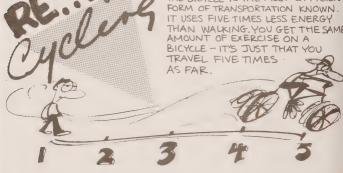


















#### STAY TUNED

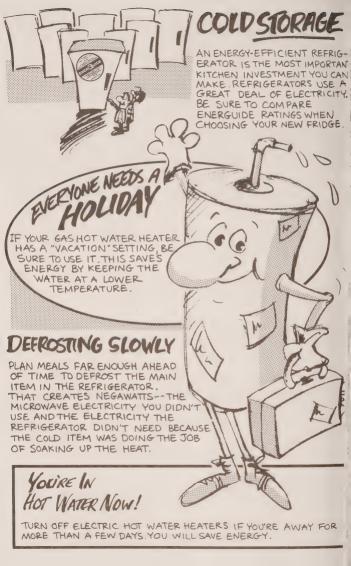
A PROPERLY TUNED CAR CAN USE NEARLY ATHIRD LESS FUEL THAN ONE WITH A STICKING CHOKE, AND A WELL-TUNED VEHICLE PUTS FEWER EMISSIONS INTO THE AIR THAN THE BADLY-TUNED ONES YOU CAN SEE SMOKING ALONG THE ROAD.

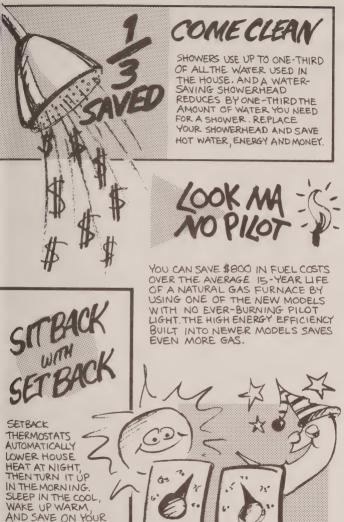
Apart from heating, almost half the electricity you use in the house is consumed in your kitchen — by your refrigerator, freezer, range, dishwasher and other appliances.



You can save electricity in the kitchen:

- use the microwave, electric kettle, toaster oven, slow cooker as alternatives to your electric range
- set aside a cooking hour and cook as many foods as possible at one time in your oven
- use fluorescent lighting
- leave cold drinks out in thermos bottles rather than in the refrigerator on hot days
- use a thermos, not the stove, for keeping coffee warm
- conserve hot water





HEATING BILL.



CONVECTION OVENS WITH FANSTHAT CIR-CULATE THE HOT AIR IN THEM ARE MORE ENERGY-EFFICIENT THAN REGULAR OVENS.

#### HOMING IN ON THE RANGE

SELF-CLEANING ELECTRIC RANGES ARE MORE ENERGY-EFFICIENT THAN REGULAR MODELS BECAUSE THEY

HAVE MORE OVEN INSULATION. USE THE CLEANING FEATURE AFTER YOU HAVE COOKED WHEN THE OVEN IS ALREADY WARM; THAT WILL ALSO SAVE ENERGY.



#### THE INSIDE STORY

REFRIGERATORS WITH SIDE-BY-SIDE DOORS USE THE MOST ENERGY WHILE ONE-DOOR UNITS WITHOUT SELF-DEFROST USE THE LEAST.

# OVER FIRING)

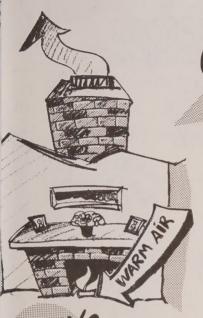
IF YOU HAVE AN OIL FURNACE HAVE YOUR SERVICE REP CHECK TO SEE IF THE FIRING RATE IS CORRECT, OVER-FIRING WASTES OIL.



APPLIANCES TO YOUR FAMILY SIZE SMALLER APPLIANCES







## LET COLD AIR IN

WOODBURNING CAN BE AN ENERGY AND MONEY WASTER, ESPECIALLY IF YOU LET WARM, INSIDE AIR GO UP THE CHIMNEY. WHEN WOODBURNER HOOK IT UP SO THAT COLD AIR FROM THE OUTSIDE IS USED FOR COMBUSTION.



DVST AND DIRT CAN IMPEDE THE FLOW OF HEAT, BE SURE TO DUST OR VACUUM RADIATOR SURFACES, IF YOU'RE PAINTING THEM, A FLAT, PREFERABLY DARKER, PAINT WILL RADIATE MORE HEATTHAN A GLOSSY ONE.

## ETTHERE BE

HITE WALLS AND CEILINGS
FLECT 80% OF THE
HIT THAT STRIKES THEM,
HILE BLACK ONES
FLECT ONLY 10%. IT
IKES LESS ENERGY
BRIGHTEN THE ROOM
ATS LIGHTER IN COLOUR.



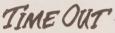




FLUORESCENT LIGHTING IS FOUR OR FIVE TIMES AS EFFICIENT AS INCANDESCENT LIGHTING. STANDARD INCANDESCENT BULBS USE 90% OF THEIR ENERGY TO MAKE HEAT AND ONLY 10% TO CREATE LIGHT.

#### INTER Spot Lakit

PUT LIGHT RIGHT WHERE IT'S NEEDED WITH SMALL LIGHTS THAT ILLUMINATE WORK AREAS, YOU'LL SAVE THE ENERGY YOU MIGHT HAVE USED TO BRIGHTEN THE WHOLE ROOM,



TIMERS THAT TURN LIGHTS ON AND OFF WHILE YOU'RE AWAY NOT ONLY CONFUSE THE WOULD-BE INTRUDER, THEY ALSO SAVE

ON 6:00PM



ENERGY THAT
WOULD BE USED
IF YOU LEFT
THE LIGHTS ON
ALL THE TIME.

OFF 7:30 AM

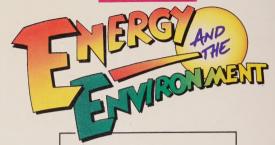
## DIMMIT parnit!

DIMMER SWITCHES SAVE ENERGY, BUT YOU CAN'T USE THEM WITH





#### **Energy Matters**



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Phone: (416) 965-3246, (416) 327-1234 or

1-800-ENERGY1

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Demandes de renseignements Ministère de l'Énergie 9° étage 56, rue Wellesley ouest Toronto (Ontario) M7A 2B7

Tél: (416) 965-3246, (416) 327-1234 ou





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